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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,760	02/20/2004	Seiji Horie	Q80022	3737
23373	7590	06/08/2006		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER SHAH, MANISH S	
			ART UNIT 2853	PAPER NUMBER

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

10/781,760

Applicant(s)

HORIE ET AL.

Examiner

Manish S. Shah

Art Unit

2853

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 1,2,4,5,7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,6 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/20/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Oshima et al. (# US 2002/0058729).

Oshima et al. discloses an electrostatic inkjet ink composition including a non-aqueous solvent having a low dielectric constant, which is 3.0 or lower ([0047] and a surface tension at 25 degree is from 22.5 to 28. mN/m ([0049]); see Examples); a color material that is insoluble in the non-aqueous solvent ([0051]); and a charge control agent that is soluble in the non-aqueous solvent ([0058]), wherein the charge control agent contains a polymer capable of being solubilized in the non-aqueous solvent, which is obtained by reacting a copolymer containing at least one monomer and maleic anhydride as constitutional units with a primary amino compound or a primary amino compound and a secondary amino group which is a polymer containing a half-amide maleic acid component and a maleinimide component as repeating units ([0061]-[0063]; [0066]-[0068]). They also disclose that the ink composition has a volume resistivity at 25 degree C of  $10^{10}$   $\Omega$ cm or higher ([0036]).

2. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Oshima et al. (# US 2002/0058729).

Oshima et al. discloses an method for forming an electrostatic inkjet image including an electrostatic inkjet ink composition including a non-aqueous solvent having a low dielectric constant, which is 3.0 or lower ([0047] and a surface tension at 25 degree is from 22.5 to 28. mN/m ([0049]); see Examples); a color material that is insoluble in the non-aqueous solvent ([0051]); and a charge control agent that is soluble in the non-aqueous solvent ([0058]), wherein the charge control agent contains a polymer capable of being solubilized in the non-aqueous solvent, which is obtained by reacting a copolymer containing at least one monomer and maleic anhydride as constitutional units with a primary amino compound or a primary amino compound and a secondary amino group which is a polymer containing a half-amide maleic acid component and a maleinimide component as repeating units ([0061]-[0063]; [0066]-[0068]). They also disclose that the ink composition has a volume resistivity at 25 degree C of  $10^{10}$   $\Omega$ cm or higher ([0036]). They also disclose that an applying a voltage to the recording electrodes to allow an electrostatic force to act on the ink, thereby ejecting ink droplets in a state that particles of the color material are concentrated; and forming print dots on a recording medium disposed opposite thereto ([0094]-[0109]).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oshima et al. (# US 2002/0058729).

Oshima et al. discloses an electrostatic inkjet ink composition including a non-aqueous solvent having a low dielectric constant, which is 3.0 or lower ([0047] and a surface tension at 25 degree is from 22.5 to 28. mN/m ([0049]); see Examples); a color material that is insoluble in the non-aqueous solvent ([0051]); and a charge control agent that is soluble in the non-aqueous solvent ([0058]), wherein the charge control agent contains a polymer capable of being solubilized in the non-aqueous solvent, which is obtained by reacting a copolymer containing at least one monomer and maleic anhydride as constitutional units with a primary amino compound or a primary amino compound and a secondary amino group which is a polymer containing a half-amide maleic acid component and a maleinimide component as repeating units ([0061]-[0063]; [0066]-[0068]). They also disclose that the ink composition has a volume resistivity at 25 degree C of  $10^{10}$   $\Omega$ cm or higher ([0036]).

Oshima et al. discloses all the limitation of the electrostatic inkjet ink composition except that the ink composition has a particle electric conductivity of 100 ps/cm or more.

However, this limitation is consider to be obvious, because there does not appear to be any reason why the cited reference would not contains an ink composition with applicant's claimed properties since the electrostatic ink composition of the above reference is the same as those claimed by applicants.

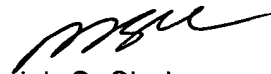
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Manish S. Shah  
Primary Examiner  
Art Unit 2853

MSS

5/31/06